Designing Socially Sustainable Future Workplaces

(in the Age of Disruption and Uncertainty)

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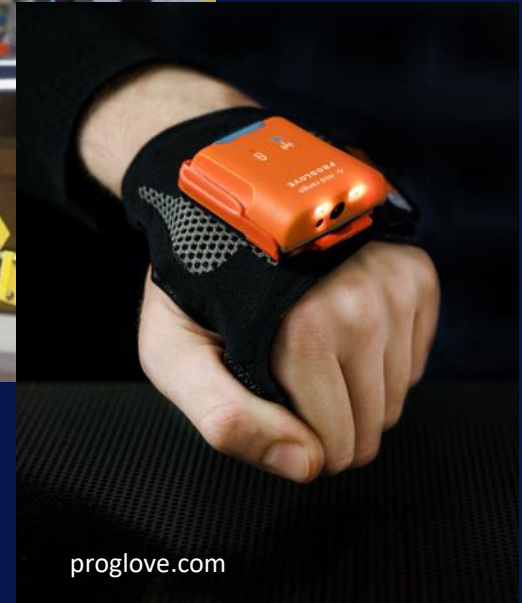*What will **you** do to the humans in manufacturing?*

Good leadership = creating good conditions for people to perform

Technological innovations – how will they affect workers?

eksobionics.com

Source: Microsoft

proglove.com
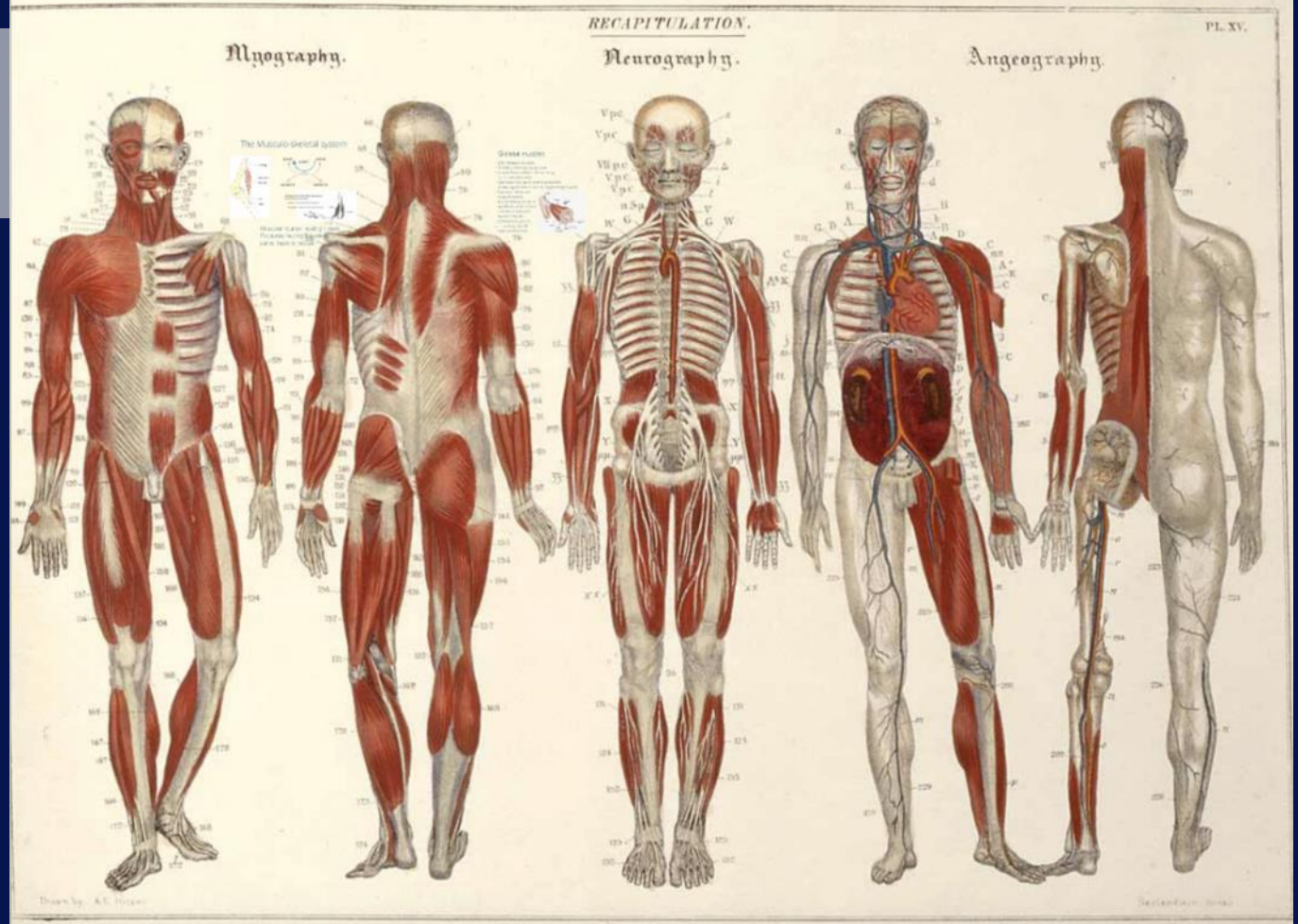
What hasn't changed…

What <u>hasn't</u> changed…

Memory

<u>Cognitive resources</u> get spent!

Attention

Stress

Experience

Senses as we age
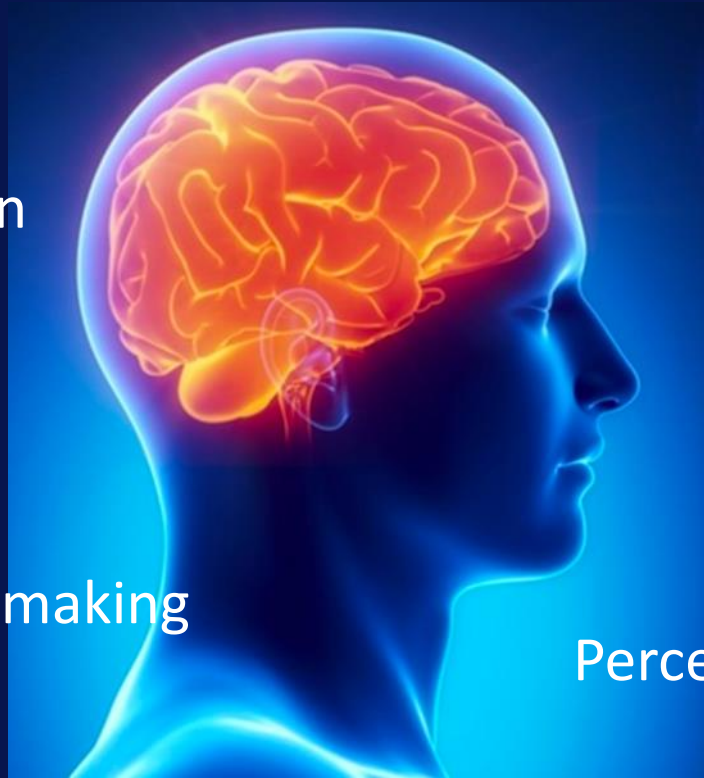
Decision-making

Perception

A moving target:

*What <u>future</u> health risk exposures
will designers and engineers
need to learn to expect,
when new technology and work
demands meet
human bodies and minds?*

In all work environments...

How can we **_prevent_** ill-health...

... and increase well-being alongside system performance?

USING:
- Design
- Evaluation
- Training

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- *More knowledge about cognitive ability vs. mental workload – how to analyze and design work for healthy levels*

- *Effects of enabling technology, e.g. Using digital tools or wearing an exoskeleton on the body all day*

- *What will give us enough <u>recovery,</u> at work and in our lifestyle?*

Future vision of health in industrial work:

- No more hand injuries! (physical)

- No more engineers designing harmful workplaces or tasks! (macro)

- Better recognition of mental work over- (or under-) load! (cognitive)

- Knowing what it means to use advanced aids, like digitalized systems, exoskeletons etc. (cognitive / physical / macro)

What will *you* do to the humans in manufacturing?

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